Computing the Multiplier Equation

1. Open a New Excel Spreadsheet
2. List FTC Nicotine Data in Column A
3. List Massachusetts Nicotine Data in Column B
4. Highlight all Data and Column Titles (Column Description Titles not Column **A**, **B**, **C**, etc.)
5. Select the ChartWizard
6. Expand the Chart Box on the page to desired size
7. ChartWizard Dialog Box Step 1 of 5 is displayed
8. Verify Range entry of data location, if not correct then enter cell locations of data
9. Press Next
10. ChartWizard Dialog Box Step 2 of 5 is displayed
11. Select XY (Scatter) Chart
12. Press Next
13. ChartWizard Dialog Box Step 3 of 5 is displayed
14. Select Format # 1 for Chart Style
15. Press Next
16. ChartWizard Dialog Box Step 4 of 5 is displayed
17. Verify:
    - Data Series in Columns is selected
    - Use First 1 Column for X Data
    - Use First 1 Row for Legend Text
18. Press Next
19. ChartWizard Dialog Box Step 5 of 5 is displayed
20. Verify:
    - Yes is Selected to "Add a Legend?"
    - Type Chart Title
    - Type Category X Title
    - Type Value Y
21. Press Finish
22. Double Click on Graph to Select it
23. Click on any Data Points on the Graph until some Points are Highlighted
24. Select Insert from the Menu
25. Select Trendline from the Pull-down Menu
26. Select the TYPE Tab
27. Highlight the Polynomial Chart
28. Verify Order: 2
29. Select the OPTIONS Tab
30. Set Forecast Forward to 0.5 Units
31. Set Forecast Backward to 0.4 Units
32. Select Display Equation on Chart
33. Select R-squared Value on Chart
34. Press OK

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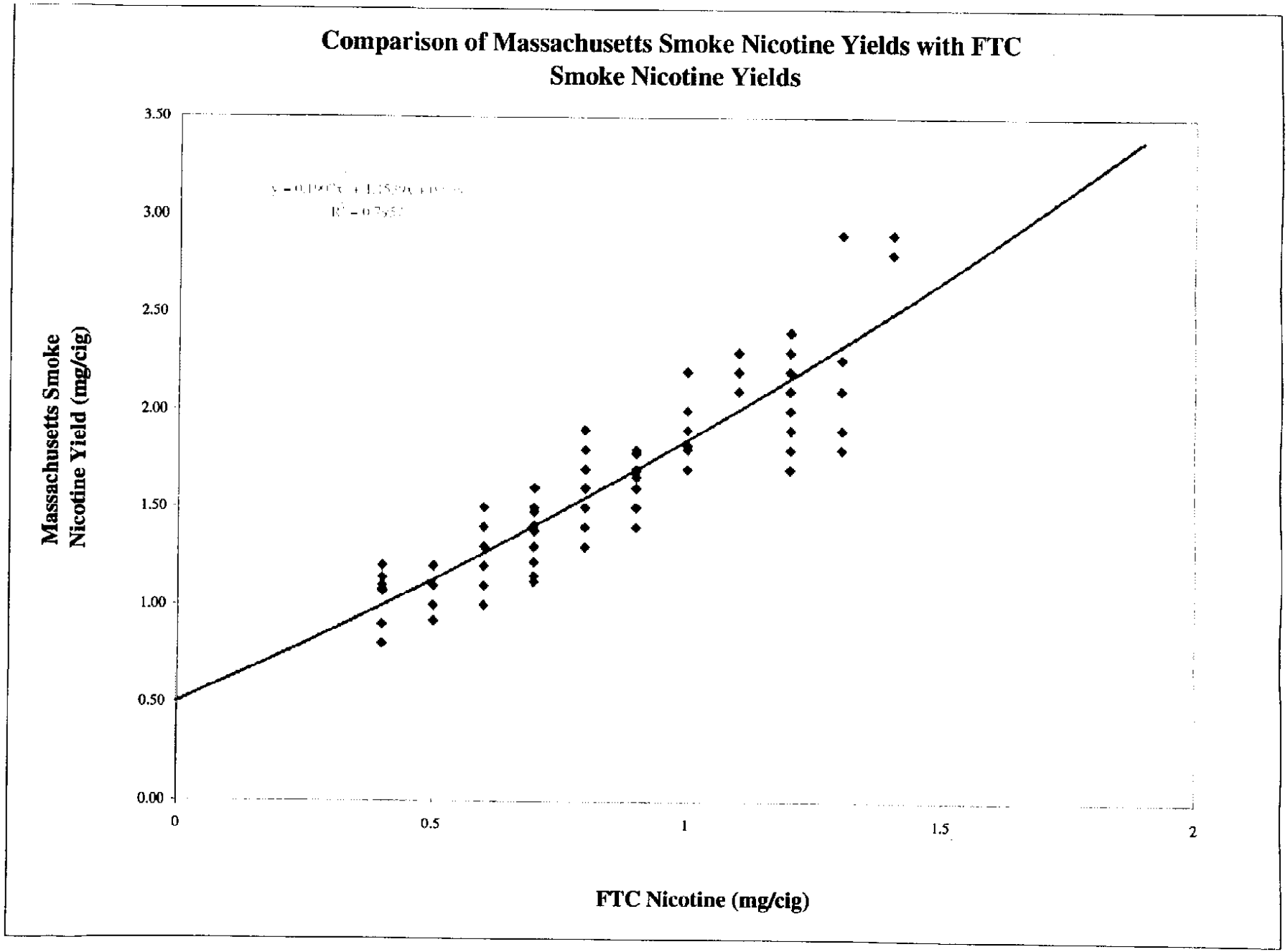

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FTC & Massachusetts Nicotine Data

Lorillard

Brand	Style	1997 FTC Report Nicotine	1997 Mass. Smoke Nicotine
Newport	KFMSP	1.2	2.4
Newport	100FMHP	1.3	2.9
Newport	100FMSP	1.4	2.8
Newport	25KFMSP	1.2	2.4
Newport	25s100FMSP	1.4	2.9
Newport	Lt.KFMHP	0.7	1.5
Newport	Lt. KFMSP	0.7	1.5
Newport	Lt.100s100FMHP	0.8	1.9
Newport	Lt.100s100FMSP	0.8	1.9
Newport	Sl LT.100FMHP	0.8	1.8
Newport	Stripes Lt 100s 100FHP	1.0	1.8
Newport	KFMHP	1.1	2.3
Newport	Stripes 100s 100FHP	0.9	1.8

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FTC & Massachusetts Nicotine Data

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Brand	Style	1997 FTC Report Nicotine	1997 Mass. Smoke Nicotine
Marlboro	KFHP	1.1	2.1
Marlboro	KFSP	1.1	2.1
Marlboro	KFSP25	1.1	2.1
Marlboro	KFSPM	1.0	2.2
Marlboro	KFHPM	1.1	2.2
Marlboro	KFSP Med	0.9	1.7
Marlboro	KFHP Med	0.8	1.7
Marlboro	KFSPlt	0.8	1.6
Marlboro	KFSPlt 25	0.8	1.6
Marlboro	KFHPlt	0.8	1.6
Marlboro	KFSPM lt	0.8	1.6
Marlboro	KFHPM lt	0.7	1.6
Marlboro	100FSP	1.1	2.3
Marlboro	100FHP	1.2	2.2
Marlboro	100FSP Med	1.0	2.0
Marlboro	100FHP Med	1.0	1.9
Marlboro	100FSPlt	0.8	1.7
Marlboro	100FHP lt	0.8	1.7
Marlboro	100FSPM lt	0.8	1.6
Marlboro	100FHPM lt	0.7	1.6

Source: https://www.industrydocuments.ucsf.edu/docs/npbl0001

FTC & Massachusetts Nicotine Data

B&W

Brand	Style	1997 FTC Report Nicotine	1997 Mass. Smoke Nicotine
GPC	FF 100	0.9	1.66
GPC	FF 100 Box	0.9	1.60
GPC	FFKS	0.9	1.69
GPC	FFKS Box	1.0	1.70
GPC	FF Men 100	0.9	1.78
GPC	FF Men KS	1.0	1.82
GPC	LT 100	0.7	1.38
GPC	LT 100 Box	0.7	1.22
GPC	LT KS	0.7	1.12
GPC	LT KS Box	0.7	1.15
GPC	LT Men 100	0.7	1.48
GPC	LT Men KS	0.7	1.41
GPC	Med 100 Box	N/A	1.52
GPC	Med KS Box	N/A	1.28
GPC	ULT Men 100	0.4	1.14
GPC	Non Filter	1.3	2.26
GPC	ULT Men KS	0.4	1.07
GPC	ULT 100	0.4	1.08
GPC	ULT KS	0.5	0.92

Source: https://www.industrydocuments.ucsf.edu/docs/npbl0001

FTC & Massachusetts Nicotine Data

RJR

Brand	Style	1997 FTC Report Nicotine	1997 Mass. Smoke Nicotine
Doral	100FHP	N/A	1.7
Doral	100FHP LT	N/A	1.7
Doral	100FSP	0.8	1.6
Doral	100FSP FF Men	0.9	1.7
Doral	100FSP LT	0.7	1.5
Doral	100FSP Lt Men	0.6	1.5
Doral	100FSP Ult Lt	0.4	1.1
Doral	King FHP	0.9	1.6
Doral	King FHP FF Men	N/A	1.6
Doral	King FHP Lt.	0.6	1.1
Doral	King FSP	0.9	1.7
Doral	King FSP FF Men	0.9	1.7
Doral	King FSP LT	0.6	1.2
Doral	King FSP LT Men	0.6	1.2
Doral	King FSP Ult Lt	0.4	0.9
Doral	King NF SP	1.2	2.1
Winston	100FHP Lt	0.8	1.7
Winston	100 FHP Ult.Lt	0.6	1.4
Winston	100 FSP	1.2	2.3
Winston	100FSP Lt.	0.8	1.9
Winston	100 FSP Ult Lt.	0.4	1.2
Winston	King FHP	1.3	2.1
Winston	King FHP Lt.	0.8	1.4
Winston	King FHP Ult. Lt	0.5	1.2
Winston	King FSP	1.2	2.0
Winston	King FSP Lt	0.7	1.5
Winston	King FSP Ult Lt.	0.5	1.2
Winston Select	100 FHP	N/A	N/A
Winston Select	100 FHP Slim-Lt	0.8	1.8
Winston Select	100 FSP	N/A	1.8
Winston Select	100 FSP LT	0.9	N/A
Winston Select	King FHP	1.3	2.1
Winston Select	King FHP Lt.	0.8	1.4
Winston Select	King FSP	1.2	2.1
Winston Select	King FSP Lt	0.9	1.6

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FTC & Massachusetts Nicotine Data

Brand	Style	Labstat 1997 FTC Report Nicotine	1997 Mass. Smoke Nicotine
Doral	100FHP	N/A	1.5
Doral	100FSP	0.8	1.5
Doral	100FSPFFMen	0.9	1.5
Doral	100FSPLt	0.7	1.3
Doral	100FSPLTMen	0.6	1.3
Doral	100FSPUltraLt	0.4	0.9
Doral	KINGFHP	0.9	1.5
Doral	KINGFHPFFMen	N/A	1.4
Doral	KINGFHPLt	0.6	1.0
Doral	KINGFSP	0.9	1.5
Doral	KINGFSPFFMen	0.9	1.5
Doral	KINGFSPLt	0.6	1.1
Doral	KINGFSLtMen	0.6	1.0
Doral	KINGFSPUltraLt	0.4	0.8
Doral	KINGNFSP	1.2	1.7
Winston	100FHPLt	0.8	1.5
Winston	100FHPUltraLt	0.6	1.2
Winston	100FSP	1.2	2.1
Winston	100FSPLt	0.8	1.6
Winston	100FSPUltraLt	0.4	1.1
Winston	KING FHP	1.3	1.9
Winston	KINGFHPLt	0.8	1.3
Winston	KINGFHPUltraLt	0.5	1.0
Winston	KINGFSP	1.2	1.8
Winston	KINGFSPLt	0.7	1.3
Winston	KINGFSPUITRALt	0.5	1.1
Winston	100FHP	N/A	N/A
Winston	100FHPSlimLt	0.8	1.5
Winston	100FSP	N/A	1.6
Winston	100FSPLt	0.9	N/A
Winston	KINGFHP	1.3	1.8
Winston	KINGFHPLt	0.8	1.3
Winston	KINGFSP	1.2	1.9
Winston	KINGFSPLt	0.9	1.4

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An Example Using the Multiplier Equation to Predict Non-tested Brands

	A	B	C	D
1			$y = 0.1907x^2 + 1.1539x + 0.5$	
			$R^2 = 0.7957$	
2	**Brand**	**FTC Nic**	**Calculated Nicotine Value Using the Multiplier Equation**	
3	Alpine 100 F SP Men	1.1	2	
4	Alpine 100 F SP Lt Men	0.7	1.4	
5	Alpine King F HP FF Men	1	1.8	
6	Alpine King F HP Lt Men	0.7	1.4	
7	Alpine King F SP Lt Men	0.7	1.4	
8	Alpine King F SP Men	1	1.8	
9	Benson & Hedges 100 F HP Ultra Lt Men Dix	0.5	1.1	
10	Benson & Hedges 100 F HP Men	1.1	2	
11	Benson & Hedges 100 F HP Lt	0.8	1.6	
12	Benson & Hedges 100 F HP Lt Men	0.8	1.6	
13	Benson & Hedges 100 F HP	1.1	2	
14	Benson & Hedges 100 F SP Lt	0.8	1.6	
15	Benson & Hedges 100 F SP	1.1	2	
16				
17				

1. Enter the list of Brands in Column A Starting in Cell A2 with the Column Title
2. Enter the list of FTC Nicotine Results in Column B Starting in Cell B2 with the Column Title
3. Enter the Multiplier Equation in Cell C1
4. Enter the Column Title in Cell C2
5. Enter the Computation Formula in Cell C3 (Example: =ROUND(((0.1907*(B3^2))+(1.1539*B3)+0.505),1)
   a. This Formula Replaces the *X* in the Multiplier Equation with the Data in Cell B2 and Computes the Results Based on the Equation
   b. Results are Rounded to 1 Decimal Place
6. Copy the Formula from Cell C3 Down Column C for the Remaining Brands

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